

# **ANNUAL SYNAR REPORT**

**42 U.S.C. 300x-26**

OMB No 0930-0222

**FFY 2010**

**State: North Carolina**



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Substance Abuse and Mental Health Services Administration  
Center for Substance Abuse Prevention  
[www.samhsa.gov](http://www.samhsa.gov)

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## INTRODUCTION

The Annual Synar Report (ASR) format provides the means for States to comply with the reporting provisions of the Public Health Service Act (42 U.S.C. 300x-26) and the Tobacco Regulation for the SAPT Block Grant (45 C.F.R. 96.130 (e)).

Public reporting burden for the collection of information is estimated to average 15 hours for Section I and 3 hours for Section II, including the time for reviewing instructions, completing and reviewing the collection of information, searching existing data sources, and gathering and maintaining the data needed. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to SAMHSA Reports Clearance Officer; Paperwork Reduction Project; 1 Choke Cherry Road, 7th Floor Rockville, Maryland 20857.

An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control number for this project is 0930-0222 with an expiration date of 10-31-2010.

### **How the Synar report helps the Center for Substance Abuse Prevention**

In accordance with the tobacco regulations, States are required to provide detailed information on progress made in enforcing youth tobacco access laws (FFY 2009 Compliance Progress) and future plans to ensure compliance with the Synar requirements to reduce youth tobacco access rates (FFY 2010 Intended Use Plan). These data are required by 42 U.S.C. 300x-26 and will be used by the Secretary to evaluate State compliance with the statute. Part of the mission of the Center for Substance Abuse Prevention (CSAP) is to assist States<sup>1</sup> by supporting Synar activities and providing technical assistance helpful in determining the type of enforcement measures and control strategies that are most effective. This information is helpful to CSAP in improving technical assistance resources and expertise on enforcement efforts and tobacco control program support activities, including State Synar Program support services, through an enhanced technical assistance program involving conferences and workshops, development of training materials and guidance documents, and on-site technical assistance consultation.

### **How the Synar report can help States**

The information gathered for the Synar report can help States describe and analyze sub-State needs for program enhancements. These data can also be used to report to the State legislature and other State and local organizations on progress made to date in enforcing youth tobacco access laws when aggregated statistical data from State Synar reports can demonstrate to the Secretary the national progress in reducing youth tobacco access problems. This information will also provide Congress with a better understanding of State progress in implementing Synar, including State difficulties and successes in enforcing retailer compliance with youth tobacco access laws.

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<sup>1</sup>The term State is used to refer to all the States and territories required to comply with Synar as part of the Substance Abuse Prevention and Treatment Block Grant Program requirements (42 U.S.C. 300x-64 and 45 C.F.R. 96.121).

## **Getting assistance in completing the Synar report**

If you have questions about programmatic issues, you may call CSAP's Division of State Programs at (240) 276-2413 and ask for your respective State Project Officer, or contact your State Project Officer directly by telephone or e-mail using the directory provided in the FY 2010 Uniform Application, Appendix A. If you have questions about fiscal or grants management issues, you may call the Grants Management Officer, Office of Program Services, Division of Grants Management, at (240) 276-1422.

## **Where and when to submit the Synar report**

The Annual Synar Report (ASR) must be received by SAMHSA no later than December 31, 2009. The ASR must be submitted in the **approved OMB report format**. Use of the approved format will avoid delays in the review and approval process. The chief executive officer (or an authorized designee) of the applicant organization must sign page 1 of the ASR certifying that the State has complied with all reporting requirements.

The State must upload one copy of the ASR using the online WebBGAS (Block Grant Application System). In addition, the following items must be uploaded to WebBGAS:

- FFY 2010 Synar Survey Results: States that use the Synar Survey Estimation System (SSES) must upload one copy of SSES Tables 1-5 (in Excel) to WebBGAS. States that do not use SSES must upload one copy of ASR Forms 1, 4 and 5, and Forms 2 and 3, if applicable, (in Excel) to WebBGAS.
- Synar Inspection Form: States must upload one blank copy of the inspection form used to record the result of each Synar inspection.
- Synar Inspection Protocol: States must upload a copy of the protocol used to train inspection teams on conducting and reporting the results of the Synar inspections.

Each State SSA Director has been e-mailed a login ID and password to log onto the Synar section of the WebBGAS site.

Additionally, the State must submit one signed original of the report (including the signed Funding Agreements/Certifications), as well as one additional copy of the signed Funding Agreements/Certifications, to the Grants Management Officer at the address below:

Ms. Barbara Orlando  
Grants Management Officer  
Office of Program Services  
Division of Grants Management  
Substance Abuse and Mental Health Services Administration

### **Regular Mail:**

1 Choke Cherry Road, Rm.7-1091  
Rockville, Maryland 20857

### **Overnight Mail:**

1 Choke Cherry Road, Rm.7-1091  
Rockville, Maryland 20850

## FFY 2010: FUNDING AGREEMENTS/CERTIFICATIONS

The following form must be signed by the Chief Executive Officer or an authorized designee and submitted with this application. Documentation authorizing a designee must be attached to the application.

### PUBLIC HEALTH SERVICES ACT AND SYNAR AMMENDMENT

42 U.S.C. 300x-26 requires each State to submit an annual report of its progress in meeting the requirements of the Synar Amendment and its implementing regulation (45 C.F.R. 96.130) to the Secretary of the Department of Health and Human Services. By signing below, the chief executive officer (or an authorized designee) of the applicant organization certifies that the State has complied with these reporting requirements and the certifications as set forth below.

### SYNAR SURVEY SAMPLING METHODOLOGY

The State certifies that the Synar survey sampling methodology on file with the Center for Substance Abuse Prevention and submitted with the Annual Synar Report for FFY 2010 is up-to-date and approved by the Center for Substance Abuse Prevention.

### SYNAR SURVEY INSPECTION PROTOCOL

The State certifies that the Synar Survey Inspection Protocol on file with the Center for Substance Abuse Prevention and submitted with the Annual Synar Report for FFY 2010 is up-to-date and approved by the Center for Substance Abuse Prevention.

State: North Carolina

Name of Chief Executive Officer or Designee: *Lanier Canaler*

Signature of CEO or Designee:



Title: Secretary, NC Department of Health and Human Services

Date Signed: *12/22/09*

If signed by a designee, a copy of the designation must be attached.

## SECTION I: FFY 2009 (Compliance Progress)

### YOUTH ACCESS LAWS, ACTIVITIES, AND ENFORCEMENT

42 U.S.C. 300x-26 requires the States to report information regarding the sale/distribution of tobacco products to individuals under age 18.

1. Please indicate any changes or additions to the State tobacco statute(s) relating to youth access since the last reporting year. If any changes were made to the State law(s) since the last reporting year, please attach a photocopy of the law to the hard copy of the ASR and also upload a copy of the State law to WebBGAS. (see 42 U.S.C. 300x-26).

- a. Has there been a change in the *minimum sale age* for tobacco products?

☐ Yes ☒ No

If Yes, current minimum age: ☐ 19 ☐ 20 ☐ 21

- b. Have there been any changes in State law that impact the State's *protocol for conducting Synar inspections*? ☐ Yes ☒ No

If Yes, indicate change. (Check all that apply.)

- ☐ Changed to require that law enforcement conduct inspections of tobacco outlets  
☐ Changed to make it illegal for youth to possess, purchase or receive tobacco  
☐ Changed to require ID to purchase tobacco  
☐ Other change(s) (Please describe.) \_\_\_\_\_

- c. Have there been any changes in the law concerning *vending machines*?

☐ Yes ☒ No

If Yes, indicate change. (Check all that apply.)

- ☐ Total ban enacted  
☐ Banned from location(s) accessible to youth  
☐ Locking device or supervision required  
☐ Other change(s) (Please describe.) \_\_\_\_\_

- d. Have there been any changes in State law that impact the following?

Licensing of tobacco vendors ☐ Yes ☒ No

Penalties for sales to minors ☐ Yes ☒ No

2. Describe how the Annual Synar Report (see 45 C.F.R. 96.130(e)) and the State Plan (see 42 U.S.C. 300x-51) were made public within the State prior to submission of the ASR. (Check all that apply.)

☐ Placed on file for public review

☒ Posted on a State agency Web site (Please provide exact Web address.)

[www.ncdhhs.gov/mhddsas/statpublications/reports/index.htm#statisticalreports](http://www.ncdhhs.gov/mhddsas/statpublications/reports/index.htm#statisticalreports)

- ☐ Notice published in a newspaper or newsletter
- ☐ Public hearing
- ☐ Announced in a news release, a press conference, or discussed in a media interview
- ☐ Distributed for review as part of the SAPT Block Grant application process
- ☐ Distributed through the public library system
- ☐ Published in an annual register
- ☐ Other change(s) (Please describe.) \_\_\_\_\_

**3. Identify the following agency or agencies (see 42 U.S.C. 300x-26 and 45 C.F.R. 96.130).**

**a. The State agency(ies) designated by the Governor for oversight of the Synar requirements:**

NC Department of Health and Human Services, Division of Mental Health, Developmental Disabilities and Substance Abuse Services

Has this changed since last year's Annual Synar Report? ☐ Yes ☒ No

**b. The State agency(ies) responsible for conducting random, unannounced Synar inspections:**

NC Department of Health and Human Services, Division of Mental Health, Developmental Disabilities and Substance Abuse Services

Has this changed since last year's Annual Synar Report? ☐ Yes ☒ No

**c. The State agency(ies) responsible for enforcing youth tobacco access law(s):**

NC Department of Crime Control and Public Safety, Division of Alcohol Law Enforcement

Has this changed since last year's Annual Synar Report? ☐ Yes ☒ No

**4. Identify the State agency(ies) responsible for tobacco prevention activities.**

NC Department of Health and Human Services, Division of Public Health, Tobacco Prevention and Control Branch

Has the responsible agency changed since last year's Annual Synar Report?

☐ Yes ☒ No

**a. Describe the coordination and collaboration that occur between the agency responsible for tobacco prevention and the agency responsible for oversight of the Synar requirements. (Check all that apply.) The two agencies**

- ☐ Are the same
- ☐ Have a formal written memorandum of agreement
- ☒ Have an informal partnership
- ☒ Conduct joint planning activities
- ☐ Combine resources
- ☒ Have other collaborative arrangement(s) (Please describe.) Collaborate on

**5. Please answer the following questions regarding the State's activities to enforce the youth access to tobacco law(s) in FFY 2009 (see 42 U.S.C. 300x-26 and 45 C.F.R. 96.130(e)).**

**a. Which one of the following describes the enforcement of youth access to tobacco laws carried out in your State? (Check one category only.)**

- ☐ Enforcement is conducted exclusively by local law enforcement agencies.
- ☐ Enforcement is conducted exclusively by State agency(ies).
- ☒ Enforcement is conducted by both local and State agencies.

**b. The following items concern penalties imposed for violations of youth access to tobacco laws by LOCAL AND/OR STATE LAW ENFORCEMENT AGENCIES. Please fill in the number requested. If State law does not allow for an item, please mark "NA" (not applicable). If a response for an item is unknown, please mark "UNK." The chart must be filled in completely.**

PENALTY	OWNERS	CLERKS	TOTAL
Number of <u>citations issued</u> (charge total)	NA	1,301	1,301
Number of <u>finest assessed</u>	NA	UNK	UNK
Number of <u>permits/licenses suspended</u>	NA		0
Number of <u>permits/licenses revoked</u>	NA		0
Other (Please describe.) <u>conviction total</u>	NA	639	639

**c. What additional activities are conducted in your State to support enforcement and compliance with State tobacco access law(s)? (Check all that apply.)**

- ☒ Merchant education and/or training
- ☐ Incentives for merchants who are in compliance (e.g., reward and reminder)
- ☒ Community education regarding youth access laws
- ☒ Media use to publicize compliance inspection results
- ☒ Community mobilization to increase support for retailer compliance with youth access laws
- ☐ Other activities (Please list.) \_\_\_\_\_

*Briefly describe all checked activities:*

All activities described were conducted during the period from October 1, 2008 – September 30, 2009

**1. Merchant Education** – Alcohol Law Enforcement (ALE) agents conducted 307 Be a Responsible Seller/Server (BARS) programs to educate retailers and their employees on laws and penalties for selling tobacco and alcohol to minors. A



targeted direct mail campaign was sent to 992 tobacco retail outlets which had illegally sold tobacco products to minors during ALE compliance checks as well as Synar checks in the previous year. The mailing included a Red Flag cash register sticker, contact information for questions or to request merchant education materials, and a letter from the ALE Director. The letter emphasized the agency's role in reducing tobacco sales to minors in NC and also provided tips to avoid getting caught selling tobacco products to underage persons.

**2. Community Education** – The SSA and ALE participated in seven workshops to educate adult leaders on youth access issues, environmental approaches and the Red Flag Campaign.

**3. Media** – Generated 13 media stories on youth access compliance through ALE's Public Information Office.

**4. Community Mobilization** – The SSA and ALE participated in two regional trainings to mobilize youth and their adult leaders to conduct Red Flag Merchant Education and Operation Storefront activities in their local communities.

Local Management Entities (LMEs) and their Provider Agencies also conduct youth access related activities in the areas listed above, especially in community and merchant education. The LMEs are required by the SSA (through their performance contract) to provide these services at a minimum of 48 hours per each six month reporting period. They often visit local retailers to assess their need for training for their employees, to provide educational materials on state law, penalties, Red Flag retailer campaign and other resources.

- d. **Are citations or warnings issued to retailers or clerks who sell tobacco to minors for inspections that are part of the Synar survey?** ☐ Yes ☒ No

*If "Yes" to 5d, please describe the State's procedure for minimizing risk of bias to the survey results from retailers alerting each other to the presence of the survey teams:*

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## SYNAR SURVEY METHODS AND RESULTS

The following questions pertain to the survey methodology and results of the Synar survey used by the State to meet the requirements of the Synar Regulation in FFY 2009 (see 42 U.S.C. 300x-26 and 45 C.F.R. 96.130).

6. Has the sampling methodology changed from the previous year? ☐ Yes ☒ No

*The State is required to have an approved up-to-date description of the Synar sampling methodology on file with CSAP. Please submit a copy of your Synar Survey Sampling Methodology (Appendix B). If the sampling methodology changed from the previous reporting year, these changes must be reflected in the methodology submitted.*

7. Please answer the following questions regarding the State's annual random, unannounced inspections of tobacco outlets (see 45 C.F.R. 96.130(d)(2)).

- a. Did the State use the optional Synar Survey Estimation System (SSES) to analyze the Synar survey data? ☒ Yes ☐ No

*If Yes, attach SSES summary tables 1, 2, 3, and 4 to the hard copy of the ASR and upload a copy of SSES tables 1-5 (in Excel) to WebBGAS. Then go to Question 8. If No, continue to Question 7b.*

- b. Report the weighted and unweighted Retailer Violation Rate (RVR) estimates, and the standard error.

Unweighted RVR

Weighted RVR

Standard error (s.e.) of the (weighted) RVR

Fill in the blanks to calculate the right limit of the right-sided 95% confidence interval.

$$\text{RVR Estimate} + (1.645 \times \text{Standard Error}) = \text{Right Limit}$$

- c. Fill out Form 1 in Appendix A (Forms). (Required regardless of the sample design.)

- d. How were the (weighted) RVR estimate and its standard error obtained? (Check the one that applies.)

- ☐ Form 2 (Optional) in Appendix A (Forms) (Attach completed Form 2.)  
☐ Other (Please specify. Provide formulae and calculations or attach and explain the program code and output with description of all variable names.)

- e. If stratification was used, did any strata in the sample contain only one outlet or cluster this year? ☐ Yes ☐ No ☐ No stratification

*If Yes, explain how this situation was dealt with in variance estimation.*

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- f. Was a cluster sample design used? ☐ Yes ☐ No

*If Yes, fill out and attach Form 3 in Appendix A (Forms 1–5), and answer the following question.*

*If No, go to Question 7g.*

Were any certainty primary sampling units selected this year? ☐ Yes ☐ No

*If Yes, explain how the certainty clusters were dealt with in variance estimation.*

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- g. Report the following outlet sample sizes for the Synar survey.

	Sample Size
Effective sample size (sample size needed to meet the SAMHSA precision requirement assuming simple random sampling)	
Target sample size (the product of the effective sample size and the design effect)	
Original sample size (inflated sample size of the target sample to counter the sample attrition due to ineligibility and non-completion)	
Eligible sample size (number of outlets found to be eligible in the sample)	
Final sample size (number of eligible outlets in the sample for which an inspection was completed)	

- h. Fill out Form 4 in Appendix A (Forms 1–5).

8. Did the State's Synar survey use a list frame? ☐ Yes ☒ No

*If Yes, answer the following questions about its coverage.*

a. The calendar year of the latest frame coverage study: \_\_\_\_\_

b. Percent coverage from the latest frame coverage study: \_\_\_\_\_

- c. Was a new study conducted in this reporting period? ☐ Yes ☐ No

*If Yes, please complete Appendix D (List Sampling Frame Coverage Study) and submit it with the Annual Synar Report.*

d. The calendar year of the next coverage study planned: \_\_\_\_\_

9. Has the Synar survey inspection protocol changed from the previous year?

☐ Yes ☒ No

*The State is required to have an approved up-to-date description of the Synar inspection protocol on file with CSAP. Please submit a copy of your Synar Survey Inspection Protocol*

*(Appendix C). If the inspection protocol changed from the previous year, these changes must be reflected in the protocol submitted.*

**a. Provide the inspection period: From 04/25/09 To 08/16/09**  
**MM/DD/YY MM/DD/YY**

**b. Provide the number of youth inspectors used in the current inspection year:**

Six

NOTE: If the State uses SSES, please ensure that the number reported in 9b matches that reported in SSES Table 4, or explain any difference.

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**c. Fill out and attach Form 5 in Appendix A (Forms 1–5). (Not required if the State used the Synar Survey Estimation System (SSES) to analyze the Synar survey data.)**

## SECTION II: FFY 2010 (Intended Use):

Public law 42 U.S.C. 300x-26 of the Public Health Service Act and 45 C.F.R. 96.130 (e) (4, 5) require that the States provide information on future plans to ensure compliance with the Synar requirements to reduce youth tobacco access.

**1. In the upcoming year, does the State anticipate any changes in the:**

Synar sampling methodology ☐ Yes ☒ No

Synar inspection protocol ☐ Yes ☒ No

*If changes are made in either the Synar sampling methodology or the Synar inspection protocol, the State is required to obtain approval from CSAP prior to implementation of the change and file an updated Synar Survey Sampling Methodology (Appendix B) or an updated Synar Survey Inspection Protocol (Appendix C), as appropriate.*

**2. Please describe the State's plans to maintain and/or reduce the target rate for Synar inspections to be completed in FFY 2010. Include a brief description of plans for law enforcement efforts to enforce youth tobacco access laws, activities that support law enforcement efforts to enforce youth tobacco access laws, and any anticipated changes in youth tobacco access legislation or regulation in the State.**

The SSA through a contract with Alcohol Law Enforcement will implement strategies and activities to reduce youth access to tobacco products in NC. With funding from the NC Health and Wellness Trust Fund, the education and enforcement program for SFY 2010 will focus activities on targeted enforcement operations including 2,700 tobacco compliance checks conducted across the state; media and recognition activities to raise public awareness of youth access issues by generating at least 10 earned media stories; continuing to enhance and build new partnerships by participating in a minimum of three community events with HWTF grantees promoting retailer education and training as well as conducting workshops to educate communities about state efforts and how they can be engaged locally. We will also implement at least one booster activity in support of the Red Flag Campaign.

In the 2007 legislative session, the Child Fatality Task Force, with support from many state agencies, was successful in getting HB 2487 passed. The bill reads "an act to change the format of a driver's license or special identification card being issued to a person less than twenty-one years of age from a horizontal format to a vertical format to make recognition of underage persons more easy for clerks dealing in age-restricted sales of products such as alcoholic beverages and tobacco products as recommended by the child fatality task force." The law became effective October 1, 2008 for new license holders under the age of 21. The vertical format will still have the color codes (red, yellow, green) found currently on the

horizontal license format which we think will strengthen our efforts with the Red Flag Campaign. Part of our focus for the upcoming year is to work with local communities and retailers to increase awareness of the new format among retailers, local coalitions and youth organizations involved in merchant education. This will be critical for retailers to understand as they will now have to deal with two underage license formats at least until the current horizontal licenses (held by youth who received their licenses prior to October 1, 2008) are phased out.

New materials have been developed which includes a vertical license poster and revisions to the current Red Flag brochure and poster. Each of these materials was developed in both English and Spanish language. Also ALE Agents will distribute a new incentive item to retail clerks in the coming year. The item is a lapel pin which is similar to the "I didn't sell" pin distributed in Illinois. The lapel pin will replace the certificate which has been distributed since 2004.

LMEs and their Provider Agencies are inputting Synar data in the Prevention Outcomes Performance System (NC POPS) database on the retail outlets across the state in which they have conducted their merchant education activities. As a follow-up to their local merchant education visits, the SSA will submit the list of outlets to the Tobacco Program Coordinator at ALE to ensure that these retail outlets are included in statewide enforcement (compliance checks conducted by ALE) as well as any direct mail campaigns or other events.

**3. Describe any challenges the State faces in complying with the Synar regulation. (Check all that apply.)**

- ☒ Limited resources for law enforcement of youth access laws
- ☒ Limited resources for activities to support enforcement and compliance with youth tobacco access laws
- ☒ Limitations in the State youth tobacco access laws
- ☐ Limited public support for enforcement of youth tobacco access laws
- ☒ Limitations on completeness/accuracy of list of tobacco outlets
- ☐ Limited expertise in survey methodology
- ☐ Laws/regulations limiting the use of minors in tobacco inspections
- ☒ Difficulties recruiting youth inspectors
- ☒ Geographic, demographic, and logistical considerations in conducting inspections
- ☒ Cultural factors (e.g., language barriers, young people purchasing for their elders)
- ☐ Issues regarding sources of tobacco under tribal jurisdiction
- ☐ Other challenges (Please list.) \_\_\_\_\_

*Briefly describe all checked challenges and propose a plan for each, or indicate the State's need for TA related to each relevant challenge.*

The SSA continues to be concerned about the state's ability to maintain active enforcement of N.C.G.S. 14-313. The NC Health and Wellness Trust Fund Commission (HWTF) have provided funding for education and enforcement activities since 2002. For Phase IV of the HWTF Teen Tobacco Prevention and Cessation Program, funding for the education and enforcement was cut by \$100,000. Also, the cost to conduct compliance checks statewide has increased significantly. The SSA continues to contract for this service, but is getting fewer checks completed annually because of fuel prices and other costs associated with conducting the checks. The SSA is very fortunate to receive funding from the HWTF to implement this program. As the funding for grant programs becomes reduced and even more competitive, the SSA will need to ensure that there is stable funding for enforcement.

The SSA is continuing to assess youth access related policy options that may be pursued in NC. The legislative agenda of advocate organizations typically include tobacco control, although most pressing efforts focus on the clean indoor air issues for the upcoming year and possibly the excise tax. Since the state does not have a licensing law, it has been difficult to track the number of retail outlets that sell tobacco products. This is a policy option that we have discussed with partner agencies and are looking at how this kind of policy might be supported and implemented in NC.

Difficulties in recruiting youth are mostly related to competing activities such as sports and other extra-curricular activities, camps, etc. The survey team leader generally recruits several youth during the year in case these situations arise, the youth move or age out of the program.

Cultural barriers do exist particularly related to language. The SSA in partnership with ALE, El Pueblo and other stakeholders have worked together to develop merchant education materials in Spanish language. We will also explore other ways, such as training, in which we could work more effectively with Latino retailers.

## **APPENDIX A: SSES TABLES**

**TABLE 1 – Synar Survey Estimates and Sample Sizes**

**TABLE 2 – Synar Survey Results by Stratum and by OTC/VM**

**TABLE 3 – Synar Survey Sample Tally Summary**

**TABLE 4 – Synar Survey Inspection Results by Youth Inspector Characteristics**



**SSS Table 1 (Synar Survey Estimates and Sample Sizes)**

**CSAP-SYNAR REPORT**

State	nc
Federal Fiscal Year (FFY)	2010
Date	12/5/2009 13:33
Data	TOBDATAFINAL09sw.xls
Analysis Option	Stratified Clustered with FPC

**Estimates**

Unweighted Retailer Violation Rate	14.8%
Weighted Retailer Violation Rate	14.8%
Standard Error	1.1%
Is SAMHSA Precision Requirement met?	YES
Right-sided 95% Confidence Interval	[0.0%, 16.6%]
Two-sided 95% Confidence Interval	[12.6%, 17.0%]
Design Effect	1.1
Accuracy Rate (unweighted)	98.0%
Accuracy Rate (weighted)	98.0%
Completion Rate (unweighted)	98.6%

**Sample Size for Current Year**

Effective Sample Size	412
Target (Minimum) Sample Size	824
Original Sample Size	1,079
Eligible Sample Size	1,057
Final Sample Size	1,042
Overall Sampling Rate	8.9%

SSES Table 2 (Synar Survey Results by Stratum and by OTC/VM)

STATE: nc

FFY: 2010

Samp. Stratum	Var. Stratum	Outlet Frame Size	Estimated Outlet Population Size	Number of PSU Clusters Created	Number of PSU Clusters in Sample	Outlet Sample Size	Number of Eligible Outlets in Sample	Number of Sample Outlets Inspected	Number of Sample Outlets in Violation	Retailer Violation Rate(%)	Standard Error(%)
<b>All Outlets</b>											
11	11	0	982	22	3	72	69	69	14	20.5%	
12	12	0	1,103	8	2	80	80	79	14	18.8%	
13	13	0	767	4	2	58	58	58	5	8.8%	
14	14	0	878	77	5	57	57	57	4	7.0%	
21	21	0	1,238	25	3	83	82	82	11	13.0%	
22	22	0	1,620	8	2	160	160	160	17	10.6%	
31	31	0	564	11	2	64	60	58	4	6.9%	
32	32	0	856	4	2	95	92	91	11	12.2%	
33	33	0	560	56	6	63	60	58	8	13.7%	
41	41	0	877	11	2	90	85	82	17	20.8%	
42	42	0	1,407	4	2	155	154	153	33	21.6%	
43	43	0	922	83	9	102	100	95	16	17.8%	
Total		0	11,774	313	40	1,079	1,057	1,042	154	14.8%	1.1%
<b>Over the Counter Outlets</b>											
11	11	0	982	22	3	71	69	69	14	20.5%	
12	12	0	1,103	8	2	80	80	79	14	18.8%	
13	13	0	767	4	2	58	58	58	5	8.8%	
14	14	0	878	77	5	57	57	57	4	7.0%	
21	21	0	1,238	25	3	83	82	82	11	13.0%	
22	22	0	1,620	8	2	160	160	160	17	10.6%	
31	31	0	564	11	2	63	60	58	4	6.9%	
32	32	0	856	4	2	94	92	91	11	12.2%	
33	33	0	560	56	6	63	60	58	8	13.7%	
41	41	0	877	11	2	85	85	82	17	20.8%	
42	42	0	1,407	4	2	155	154	153	33	21.6%	
43	43	0	922	83	9	102	100	95	16	17.8%	
Total		0	11,774	313	40	1,071	1,057	1,042	154	14.8%	1.1%
<b>Vending Machines</b>											
11	11	0	0	22	3	0	0	0	0	0.0%	
12	12	0	0	8	2	0	0	0	0	0.0%	
13	13	0	0	4	2	0	0	0	0	0.0%	
14	14	0	0	77	5	0	0	0	0	0.0%	
21	21	0	0	25	3	0	0	0	0	0.0%	
22	22	0	0	8	2	0	0	0	0	0.0%	
31	31	0	0	11	2	0	0	0	0	0.0%	
32	32	0	0	4	2	0	0	0	0	0.0%	
33	33	0	0	56	6	0	0	0	0	0.0%	
41	41	0	0	11	2	0	0	0	0	0.0%	
42	42	0	0	4	2	0	0	0	0	0.0%	

43	43	0	0	83	9	0	0	0	0	0.0%	
Total		0	0	313	40	0	0	0	0	0.0%	0.0%

Note: There are some records with unknown outlet type. Therefore the overall counts may not equal the sum of OTC and VM counts.

**SSES Table 3 (Synar Survey Sample Tally Summary)**

STATE: nc

FFY: 2010

Disposition Code	Description	Count	Subtotal
EC	Eligible and inspection complete outlet	1042	
Total (Eligible Completes)			1042
N1	In operation but closed at time of visit	15	
N2	Unsafe to access	0	
N3	Presence of police	0	
N4	Youth inspector knows salesperson	0	
N5	Moved to new location but not inspected	0	
N6	Drive thru only/youth inspector has no drivers license	0	
N7	Tobacco out of stock	0	
N8	Run out of time	0	
N9	Other noncompletion	0	
Total (Eligible Noncompletes)			15
I1	Out of Business	2	
I2	Does not sell tobacco products	19	
I3	Inaccessible by youth	0	
I4	Private club or private residence	0	
I5	Temporary closure	1	
I6	Unlocatable	0	
I7	Wholesale only/Carton sale only	0	
I8	Vending machine broken	0	
I9	Duplicate	0	
I10	Other ineligibility	0	
Total (Ineligibles)			22
Grand Total			1079

**SSES Table 4 (Synar Survey Inspection Results by Youth Inspector Characteristics)**

STATE: nc

FFY: 2010

**Frequency Distribution**

Gender	Age	Number of Inspectors	Attempted Buys	Successful Buys
Male	14	0	0	0
	15	1	46	1
	16	3	321	42
	17	0	0	0
	18	0	0	0
	Subtotal	4	367	43
Female	14	0	0	0
	15	2	675	111
	16	0	0	0
	17	0	0	0
	18	0	0	0
	Subtotal	2	675	111
Other		0	0	0
Grand Total		6	1042	154

**Buy Rate in Percent by Age and Gender**

Age	Male	Female	Total
14	0.0%	0.0%	0.0%
15	2.2%	16.4%	15.5%
16	13.1%	0.0%	13.1%
17	0.0%	0.0%	0.0%
18	0.0%	0.0%	0.0%
Other			0.0%
Total	11.7%	16.4%	14.8%

## APPENDIX B: SYNAR SURVEY SAMPLING METHODOLOGY

State: NC  
FFY: 2010

### 1. What type of sampling frame is used?

- ☐ List frame (*Go to Question 2.*)  
☒ Area frame (*Go to Question 3.*)  
☐ List-assisted area frame (*Go to Question 2.*)

### 2. List all sources of the list frame. Indicate the type of source from the list below. Provide a brief description of the frame source. Explain how the lists are updated (method), including how new outlets are identified and added to the frame. In addition, explain how often the lists are updated (cycle). (*After completing this question, go to Question 4.*)

*Use the corresponding number to indicate Type of Source in the table below.*

- |   |  |
|---|--|
| 1 – Statewide commercial business list    | 4 – Statewide retail license/permit list |
| 2 – Local commercial business list        | 5 – Statewide liquor license/permit list |
| 3 – Statewide tobacco license/permit list | 6 – Other                                |

Name of Frame Source	Type of Source	Description	Updating Method and Cycle

### 3. If an area frame is used, describe how area sampling units are defined and formed.

**Multi-stage design:** A multi-stage design was used to facilitate the development of the sampling frame and to reduce field cost. Since no comprehensive listing of outlets is available, an area sampling frame is used. Two stages were used in the design. The sampling and data collection methods are basically unchanged from the previous survey except sample areas are canvassed in the field as the source of sample outlets rather than the D&B list of businesses as used in past Synar surveys.

**Stage 1:** In this stage, the State's 100 counties singly or in pairs comprised the primary sampling units (PSUs); minimum PSU size is 10 potential outlets. This combination resulted in a total of 96 PSUs. These PSUs were stratified into 4 primary strata based on mental health districts and into secondary strata within each of those 4 strata, based on estimated number of outlets. This resulted in a total of 12 explicit final strata. Within these strata, PSUs were sorted

by size to achieve additional stratification. PSUs were selected from each of these strata using probability proportional to size (field costs and estimated number of outlets). Three of the PSUs were selected with certainty and used as certainty strata. In the certainty strata, the ZIP code areas become the PSUs.

**Stage 2:** Within the sample PSUs of the non-certainty strata, second stage units (SSUs) are postal ZIP areas. The SSUs are selected from the sample PSUs with probability proportional to size and one subarea (anticipated to have approximately 10 to 12 outlets) is selected in each sample SSU to obtain nearly equal sampling weights. All ZIP areas that are 50 percent or more within the sample county (based on population) have a nonzero probability of being selected. ZIPs with no potential outlets according to D&B are assigned a size measure of 1. Certainty ZIP areas are given a chance of receiving more than one canvass area (consistent with expected number of hits). All random numbers were generated within Excel spreadsheet using the random number function (RAND).

- a. Is any area left out in the formation of the area frame? ☐ Yes ☒ No

If Yes, what percentage of the State's population is not covered by the area frame?  
\_\_\_\_\_ %

4. Federal regulation requires that vending machines be inspected as part of the Synar survey. Are vending machines included in the Synar survey? ☒ Yes ☐ No

If No, please indicate the reason they are not included in the Synar survey.

- ☐ State law bans vending machines  
☐ State law bans vending machines from locations accessible to youth  
☐ State has SAMHSA approval to exempt vending machines from the survey  
☐ Other (Please describe.) \_\_\_\_\_

5. Which category below best describes the sample design? (Check only one.)

☐ Census (STOP HERE: Appendix B is complete.)

**Unstratified State-wide sample:**

- ☐ Simple random sample (Go to Question 9.)  
☐ Systematic random sample (Go to Question 6.)  
☐ Single-stage cluster sample (Go to Question 8.)  
☐ Multi-stage cluster sample (Go to Question 8.)

**Stratified sample:**

- ☐ Simple random sample (Go to Question 7.)  
☐ Systematic random sample (Go to Question 6.)  
☐ Single-stage cluster sample (Go to Question 7.)

☒ Multi-stage cluster sample (*Go to Question 7.*)

☐ **Other** (*Please describe and go to Question 9.*) \_\_\_\_\_

**6. Describe the systematic sampling methods.** (*After completing Question 6, go to Question 7 if stratification is used. Otherwise go to Question 9.*)

**7. Provide the following information about stratification.**

**a. Provide a full description of the strata that are created.**

The PSUs were stratified into 4 primary strata based on mental health districts and into secondary strata within each of those 4 strata, based on estimated number of outlets. This resulted in a total of 12 explicit final strata.

**b. Is clustering used within the stratified sample?**

☒ **Yes** (*Go to Question 8.*)

☐ **No** (*Go to Question 9.*)

**8. Provide the following information about clustering.**

**a. Provide a full description of how clusters are formed.** (*If multi-stage clusters are used, give definitions of clusters at each stage.*)

**Stage 1:** In this stage, the State's 100 counties singly or in pairs comprise the primary sampling units (PSUs); minimum PSU size is 10 potential outlets. This combination results in a total of 98 PSUs, counting the certainty PSUs as one each. Within the strata described above, PSUs were sorted by size to achieve additional stratification. PSUs were selected from each of these strata using probability proportional to size (field costs and estimated number of outlets).

**Stage 2:** Within the sample PSUs, second stage units (SSUs) are ZIP areas. The SSUs are selected from the sample PSUs with probability proportional to size and one subarea (anticipated to have approximately 10 to 12 outlets) is selected in each sample SSU to obtain nearly equal sampling weights. All ZIP areas that are 50 percent or more within the sample county (based on population) have a nonzero probability of being selected if that county is selected. ZIPs with no potential outlets according to D&B are assigned a size measure of 1. Certainty ZIP areas are given a chance of receiving more than one canvass area (consistent with expected number of hits).

**b. Specify the sampling method (simple random, systematic, or probability proportional to size sampling) for each stage of sampling and describe how the method(s) is (are) implemented.**



**Stage 1:** PSUs were selected from each of these strata with equal probability.

**Stage 2:** Within the sample PSUs, second stage units (SSUs) are selected from the sample PSUs with equal probability. If an SSU contains substantially more than the targeted canvass area of 10 or 12, the SSU is sub-segmented into canvass areas on the map and equal probability is used to select a canvass area. All random numbers are generated within Excel spreadsheet using the random number function (RAND).

**9. Provide the formulae for determining the effective, target, and original outlet sample sizes.**

Below is the formula for calculating a sample size using a one-tail test:

Effective sample size (S3.1):

$$n = \frac{1}{\left( \frac{(s.e.)^2}{P(1-P)} + \frac{1}{N} \right)}$$

where  $P$  is the RVR from the previous year's survey.

s.e = 0.0183 is the standard error for the one-sided 95% confidence interval

$N$  = estimated frame size

The target sample size ( $n_t$ ) is determined by:

$$n_t = dn_e$$

where  $d$  is the design effect from the previous year's survey.

The original sample size is determined by:

$$n_o = (1 + s) \frac{n_t}{r_l r_c},$$

where  $s = 20\%$  is a safety margin,  $r_l$  is the expected eligibility rate, and  $r_c$  is the expected completion rate based on previous year's survey.

## APPENDIX C: SYNAR SURVEY INSPECTION PROTOCOL

State: NC

FFY: 2010

*Note: Upload to WebBGAS a copy of the Synar inspection form under the heading "Synar Inspection Form" and a copy of the protocol used to train inspection teams on conducting and reporting the results of the Synar inspections under the heading "Synar Inspection Protocol."*

**1. How does the State Synar survey protocol address the following?**

**a. Consummated buy attempts?**

- ☒ Required ☐ Not Permitted  
☐ Permitted under specified circumstances ☐ Not specified in protocol

**b. Youth inspectors to carry ID?**

- ☒ Required ☐ Not Permitted  
☐ Permitted under specified circumstances ☐ Not specified in protocol

**c. Adult inspectors to enter the outlet?**

- ☐ Required ☐ Not Permitted  
☒ Permitted under specified circumstances ☐ Not specified in protocol

**d. Youth inspectors to be compensated?**

- ☒ Required ☐ Not Permitted  
☐ Permitted under specified circumstances ☐ Not specified in protocol

**2. Identify the agency(ies) or entity(ies) that actually conduct the random, unannounced Synar inspections of tobacco outlets. (Check all that apply.)**

- ☐ Law enforcement agency(ies)  
☐ State or local government agency(ies) other than law enforcement  
☒ Private contractor(s)  
☐ Other

List the agency name(s): American Lung Association

**3. Are Synar inspections combined with law enforcement efforts (i.e., do law enforcement issue warnings or citations to retailers found in violation of the law at the time of the inspection)?**

- ☐ Always ☐ Usually ☐ Sometimes ☐ Rarely ☒ Never

**4. Describe the methods used to recruit, select, and train youth inspectors and adult supervisors.**

In order to assure inter-rater reliability, the same instructor trains the youth. The instructions include specific information on the role and responsibilities of the youth, followed by role-play exercises covering various scenarios that prepared the youth for the types of questions or responses to expect from merchants and their employees.

**5. Are there specific legal or procedural requirements instituted by the State to address the issue of youth inspectors' immunity when conducting inspections?**

**a. Legal** ☒ Yes ☐ No (If Yes, please describe.)

N.C.G.S. 14-313 makes it illegal for a person less than 18 years of age to purchase, acquire or receive tobacco products or cigarette wrapping papers. The two exceptions are if the minor is enlisted by a police or sheriff's department to test compliance OR if the minor is working with the Department of Health and Human Services to conduct annual, random, unannounced inspections. In both situations, prior parental consent is required.

**b. Procedural** ☐ Yes ☒ No (If Yes, please describe.)

**6. Are there specific legal or procedural requirements instituted by the State to address the issue of the safety of youth inspectors during all aspects of the Synar inspection process?**

**a. Legal** ☐ Yes ☒ No (If Yes, please describe.)

**b. Procedural** ☒ Yes ☐ No (If Yes, please describe.)

Two adult supervisors must be the same gender of each youth inspector for all overnight Synar Survey inspection trips. Bars, lounges and taverns are not inspected because of safety concerns even though they may be accessible to youth.

**7. Are there any other legal or procedural requirements the State has regarding how inspections are to be conducted (e.g., age of youth inspector, time of inspections, training that must occur)?**

**a. Legal** ☐ Yes ☒ No (If Yes, please describe.)

**b. Procedural** ☒ Yes ☐ No (If Yes, please describe.)

Youth inspectors must be 15-16 years old and must pass age verification test. They are also trained prior to beginning work with the survey team. Liquor stores are not included due to the fact that they are all state operated and do not sell tobacco products.

## APPENDIX D: LIST SAMPLING FRAME COVERAGE STUDY

*(LIST FRAME ONLY)*

State: NC  
FFY: 2010

*(Appendix D: Not Applicable to NC)*

1. Calendar year of the coverage study: \_\_\_\_\_

2. Percent coverage found: \_\_\_\_\_%

*(Provide calculation of the percent coverage.)*

3. Provide a description of the coverage study methods and results.